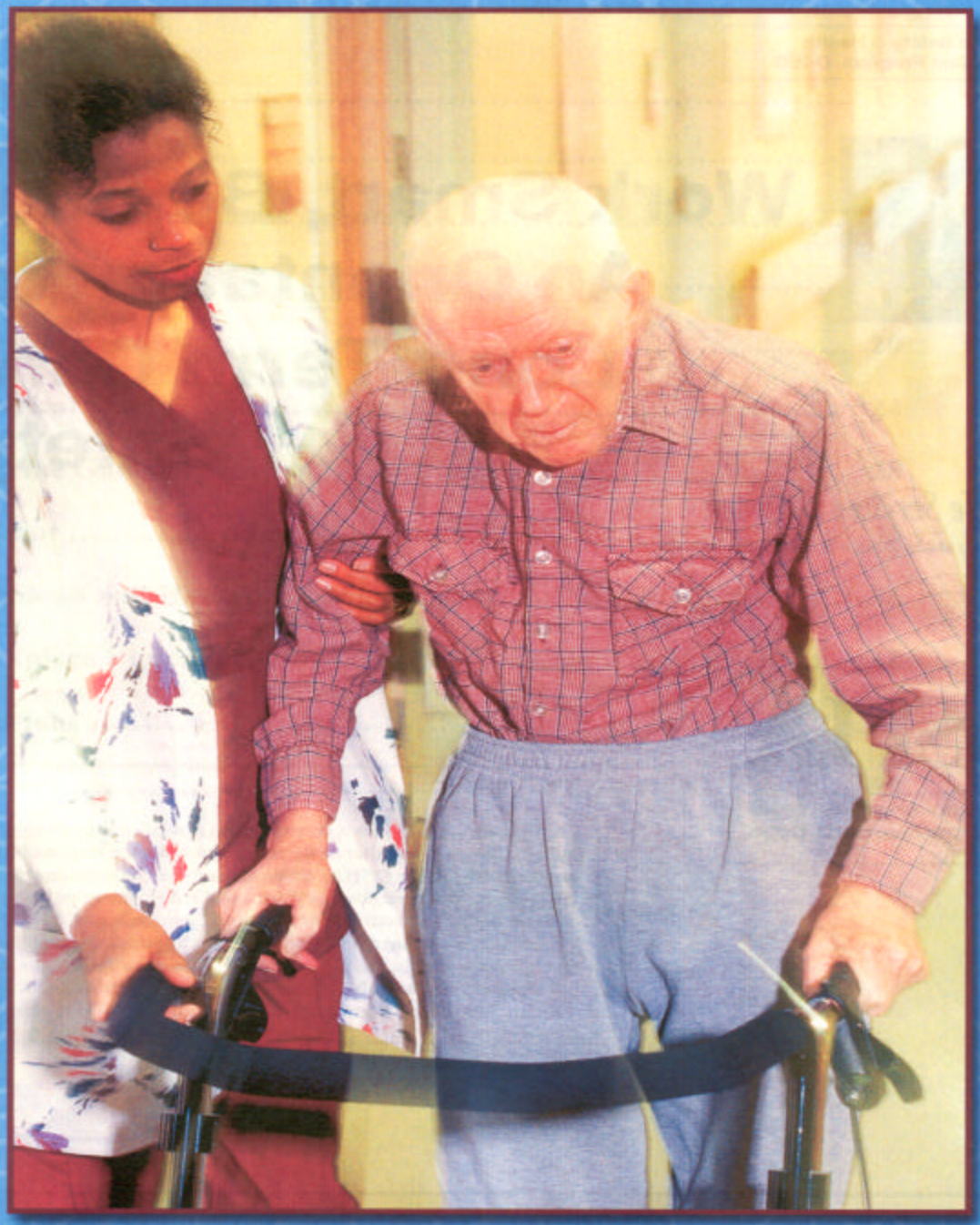
Work Smart - Be Safe

An Orientation to Long Term Care Safety



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Work Smart, Be Safe An Orientation to Long-Term Care Safety

Life Services Network
Advancing Quality and Innovation in Older Adult Services

OSHA

North Aurora Area OSHA Office
Calumet City Area OSHA Office

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INTRODUCTION

The long term care industry employs an estimated 2 million workers. These workers provide around the clock resident care and assistance to chronically ill and disabled individuals.

Despite the efforts of nursing home employers and employees in recent years, workers in nursing homes are more than twice as likely as other workers to be injured on the job.

Hazards encountered by nursing home workers may include exposure to bloodborne pathogens and other infectious agents, unsafe walking surfaces, hazardous chemicals, and the risk of workplace violence. Perhaps the greatest factor contributing to the high number of injuries in nursing homes, however, is the physically demanding nature of working in long-term care. Manual lifting, transferring and repositioning residents are tasks that have been associated with an increased risk of pain and injury to the caregiver, particularly to the back.

This handbook and the accompanying video tape will describe some of the common safety and health issues such as lifting, slips and falls, bloodborne diseases, biological hazards, hazards associated with electrical equipment, chemicals and workplace violence. The goal is to increase your awareness of these hazards and describe what you can do to protect yourself. Your employer will provide further training on the safety and health program and hazards at your nursing facility.

Special thanks to Nancy Quick, CIH, CSP, with the North Aurora OSHA Area Office, and Paul Seidlitz, RN, with the State of Illinois Onsite Safety and Health Consultation Program for their important contributions in time and knowledge in the preparation of this material.

YOUR SAFETY IS IMPORTANT TO ALL OF US.

Ergonomics

If work is performed using awkward postures or with excessive effort, fatigue and discomfort may be the result. Under these conditions muscles, tendons, ligaments, nerves and blood vessels can be damaged. Injuries of this type are known as musculoskeletal disorders.

One way to reduce or prevent this type of injury is by the use of **ergonomics** in your workplace. Ergonomics is the study of how to improve the fit between the physical demands of the workplace and the employees who perform the work.

Many jobs in long-term care facilities require lifting. Lifting is performed during resident care, processing laundry, performing housekeeping and maintenance duties, preparing and serving meals and getting supplies from the supply room. In this workbook, we will discuss ergonomic hazards related to lifting in long-term care facilities. These will be discussed in the following sections: resident handling, housekeeping operations, laundry and dietary.

Resident Handling

Caring for residents often necessitates lifting or helping them move. Since these work tasks involve sick or frail human beings, they are more complicated and risky than handling objects you normally lift, such as grocery bags and boxes. Unlike these objects, the nursing home resident is heavier, more delicate and awkward to handle.

Also, the center of gravity and the distance to the resident can change during the handling activity. This can suddenly put the provider in an awkward posture or position and require them to make more forceful exertions (for example, when stopping a fall). Residents can have medical, psychological and other conditions that can complicate lifting or moving them.

Nursing facilities which have been successful in preventing back injuries have used a multi-faceted approach involving:

1. Resident assessment
2. Assistive equipment and devices
3. Safer work practices
4. Lift teams
5. Other Measures (such as proper equipment maintenance)
6. Comprehensive training

Let's discuss each of these approaches.

1. Resident Assessment

Resident assessment, focused on the lifting or moving of the resident, is essential to protect against injury. Unexpected movements, especially falls, can hurt both the employee and the resident. Many aspects of the resident's condition can affect how they are lifted or moved. In addition to their weight, consider the following:

- ❑ Medical condition--What could make them vulnerable to further injury?
- ❑ Physical ability--How well can they sit, stand or walk on their own?
- ❑ Cognitive level--How well can they follow instructions?
- ❑ Behavior--What might they do?

Use the assessment to decide the appropriate type of assistive equipment or devices, the techniques and number of people needed. Always check the condition of the resident each time, before you begin and during the activity. Their medical condition can change from day-to-day (for better or worse), during the day (from fatigue, medication or other factors), and even during the activity.

Prior to lifting or moving residents, employees should review any information relevant to the transfer activity. This information should be readily available and clearly state the essential facts. Labels or signs can communicate the essential points in a simple manner. Another way to communicate the information is to have brief daily meetings with staff.

2. Assistive equipment and devices

There are many types of equipment and devices designed to make lifting or moving residents easier. Mechanical assistive devices (lifts) help reduce injury by avoiding unnecessary manual transfers. These devices save staff time by reducing the number of employees needed on a given transfer.

General categories or mechanical lifts include:

- ❑ Total-body
- ❑ Sit-to-stand
- ❑ Ambulation
- ❑ Bath/shower

TOTAL-BODY LIFT: *These devices are designed to lift or move individuals who are totally dependent by supporting their entire weight during the transfer. The best devices are battery-operated. Typically, they can lift an individual from the floor to the highest bed. Some devices can lift individuals up to 500 pounds or more.*

SIT-TO-STAND LIFT: *These lifts are for moving residents to and from chairs, toilets, beds or into and out of showers. It is appropriate for residents who are weight-bearing and have some upper-body strength and control. The best devices are battery-operated.*

For help with ambulating and repositioning, you may use equipment and gait belts, transfer belts with handles, draw sheets, incontinence pads, etc. There are two types of gait belts:

- A gait belt with handles. This belt comes in four sizes-small, medium, large and extra large. It is equipped with handles.
- A standard gait belt. This is "one size fits all" and is used to help transfer residents out of chairs or when ambulating a resident.

▲ *Transfer belt with handles*

Shower-toilet combination chairs and height-adjustable bathtubs can be used when showering, bathing, toileting, and performing personal hygiene activities. Residents may be bathed using shower chairs with locking wheels or in special tubs where lifting is not necessary.

On all shower-toileting chairs, make sure the brakes hold tightly.

3. Safer Work Practices

Health care providers can be injured when manually lifting or moving residents. Manual handling can also be uncomfortable for the resident (e.g., the under-the-axilla-lift). Whenever manual handling of residents is done, employees must be thoroughly trained, including "hands-on" practice sessions under supervision.

General guidelines for lifting and moving residents include:

- ❑ Assess the resident before lifting or moving them
- ❑ Eliminate or reduce manual lifting and moving of residents whenever possible. Use assistive devices or equipment when possible.
- ❑ Get residents to help as much as possible by giving them clear, simple instructions with adequate time for response.
- ❑ Make sure brakes hold properly and apply them firmly on beds, chairs, lifting devices, etc.

4. Lift Teams

Some nursing facilities have "lift teams". The lift team coordinates with the nurses and other medical personnel responsible for the resident.

5. Other Measures

Well-designed and maintained equipment and facilities are important for reducing or preventing back injuries. For example, sprain and strain injuries to the back can be prevented by the use of the height adjustable bed. There are two types of height adjustable beds, manual and electric. When providing care to the resident, the nurse or nursing assistant can adjust the bed to a comfortable working height. This helps prevent strains and sprains to the back, neck and shoulder. When care is completed, the bed can be lowered.

A regular program of maintenance can help ensure equipment is working properly and is available when needed. This can include such things as: checking brakes for their ability to lock and hold, cleaning or replacing casters or wheels so they roll easily and smoothly, replacing worn parts, and checking bed cranks.

Maintaining facilities properly allows easy movement of equipment and reduces tripping or slipping. Keep the floor free of holes, clutter, broken tiles and slippery conditions.

Appropriate footwear can provide good traction to help prevent slips or falls and cushioning when standing or walking for long periods on hard surfaces.

6. Comprehensive training

Effective training is an important part of trying to reduce or prevent injuries. Some topics training should cover include:

- ❑ Anatomy and physiology related to back injuries
- ❑ Proper work practices
- ❑ Resident assessment
- ❑ Assistive equipment and devices
- ❑ Reporting of injuries, equipment and facility problems

Finally, remember that for training to be successful at reducing employee injuries, management must provide firm support and workers must practice the skills on a daily basis during work activities.

Laundry Operations

In the laundry, a great deal of lifting is done. Soiled linen is sorted and placed in the washers. After washing, the wet linen is transferred to a dryer and after drying it is folded and stored on shelves, or placed in carts to be transported. One way to reduce the amount of lifting is to use spring-loaded carts.

Spring-loaded carts automatically bring linen within easy reach and help reduce the amount of bending over and pulling on linen that the worker has to do.

Carts should have wheel locks and height-appropriate handles that can swing out of the way.

Some tips for handling laundry include:

- ❑ Washers and dryers should be loaded and unloaded in small amounts.
- ❑ Avoid lifting and twisting when handling loads. Face the load and keep the items as close to the body as possible.
- ❑ Avoid lifting and reaching above the shoulder.
- ❑ Use spring-loaded laundry carts.

Dietary

Dietary employees must perform many lifting, reaching, and repetitive tasks as part of their job duties. Frequent, elevated and extended reaches for supplies or heavy containers can cause back and shoulder injury resulting in muscle strain, bursitis, tendonitis, and rotator cuff injuries. One way to eliminate this is to redesign or reposition tasks to allow elbows to remain close to the body (e.g., turn boxes over on their side to allow for easier access).

Kitchen worker using elevated reach – you don't want to do this!

Box placed on side allows for less reaching.

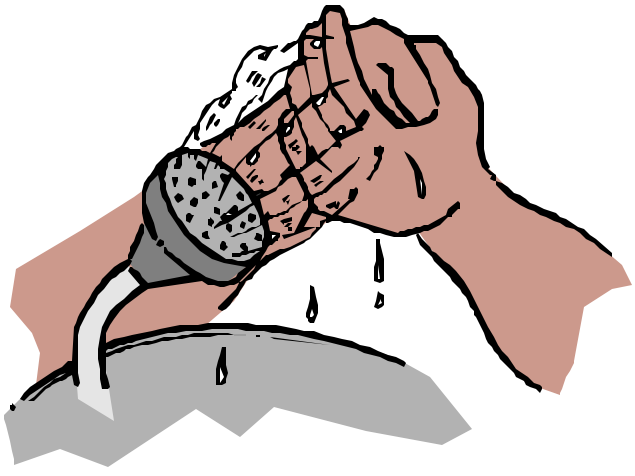
Another way to reduce reaching is to provide height-adjustable workspaces appropriate for the task being performed, so that workers can keep elbows close to the body. For example, lower countertops, use height adjustable countertops and stands, or provide work stands for employees.

Housekeeping

The housekeeping staff performs many tasks that involve lifting and reaching. There are several work practices you can use to improve your work.

When mopping, alternate mopping styles frequently (e.g., push/pull, figure 8 and rocking side-to-side). Use rubber-soled shoes in wet areas to prevent slipping. Wheeled buckets should have working brakes.
Use chemical cleaners and soaks to minimize force needed for scrubbing. Use kneepads when kneeling.
Use extension handles, step stools, or ladders for overhead jobs. When dusting overhead, use an extender.
When vacuuming, keep the cord behind you to avoid twisting.
Use carts to transport supplies. Carry only small quantities and weights of supplies. Organize cleaning carts to avoid lifting and reaching over the cart. Place commonly used supplies in front.

Biological and Infectious Agents



An infection is an illness caused by germs, such as viruses, bacteria, parasites, and fungi. An infection is contagious (infectious) when it can be passed from person to person. A common cold is an example of a contagious disease.

You must follow strict measures to prevent infections from spreading. These measures are called **Universal or Standard Precautions**.

STANDARD PRECAUTIONS. Standard precautions are used at all times with all residents. To protect yourself and others, you must assume that every resident may have an infection. Standard precautions that include handwashing and wearing protective clothing, are good ways to prevent the spread of infections.

How Standard Precautions Work:

Handwashing – Doing it right
Wet your hands; then apply soap
Rub the soap lather all over your hands
Wash all surfaces of your hands and fingers for 10 to 15 seconds. Be sure to get under your nails, around cuticles, and between fingers.
Rinse your hands well, until all the soap comes off. Point your hands down as you rinse.
Dry your hands with a clean, disposable, or single-use towel.
Turn off the faucet with a paper towel to avoid contaminating your clean hands.
Handwashing makes a difference! Wash your hands often.

***Handwashing*.** The most important thing that you can do to keep from getting sick is to wash your hands. By frequently washing your hands you wash away germs that you have picked up from other people, or from contaminated surfaces. Hands should be washed before and after visits with patients, after contact with blood or other potentially infectious materials, and after removing gloves or other protective barriers.

An alcohol-based sanitizer may be used instead of hand washing with soap and water. Alcohol-based handrubs significantly reduce the number of microorganisms on skin, are fast acting and cause less skin irritation. However, this does not eliminate the need to wash with soap and water. When hands are visibly soiled, and after using the alcohol-based sanitizer approximately three times, soap and water should be used to clean hands.

Wearing Protective Barriers

You must wear protective barriers (such as gloves) whenever contact with blood or other potentially infectious materials is likely. Disposable gowns, masks, eyewear, and other protective barriers help protect the face and skin.

Safely Handling Contaminated Items

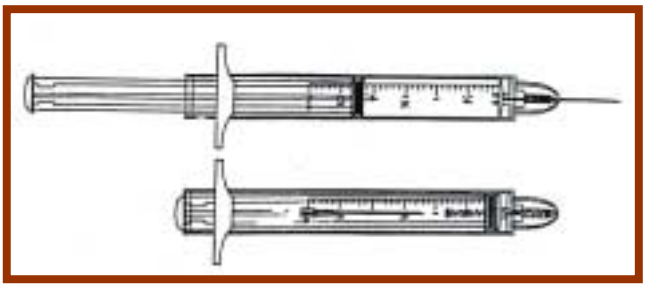
Anyone handling contaminated items such as waste, soiled linens, or patient care items, must avoid contact with blood or other potentially infectious materials.

NEVER PLACE SOILED LINEN ON THE FLOOR OR ON ANY CLEAN SURFACE!

ISOLATION PRECAUTIONS. Isolation precautions are used when a resident is known to have, or thought to have, a contagious disease. They are stopped either when a resident is found not to have an infectious disease, or when the resident is no longer infectious. These precautions are used with Standard Precautions. Residents on isolation precautions will have signs posted outside their rooms.

INFECTIOUS DISEASES AND CONTROLS. ***Bloodborne pathogens*** include HIV (human immunodeficiency virus), HBV (hepatitis B virus) and HCV (hepatitis C virus). All of these pathogens can be spread by contact with blood or other body fluids. In addition to standard precautions, there are specific regulations to protect you from getting these diseases. These include engineering controls and medical programs.

The potential for infection is greatest when needles, lancets, and other sharp instruments are used. This is because these sharps penetrate the skin. However, by working safely with sharp objects, you can prevent injuries and infections.



"Safer medical devices" are required to be used. These devices protect the laundry and maintenance workers, and housekeepers, as well as the nursing staff. In the photo to the left, you see a safer needle device. The needle retracts into the holder after the needle has been used, or activated. This device prevents you and your co-workers from being "stuck" by the contaminated needle. There are safer devices for lancets also, where the sharp retracts into the lancet once it is used.

Contaminated needles must not be recapped, removed from disposable syringes, or bent, broken, or otherwise manipulated by hand.

To protect against injury, put all sharps, including resident's razors, promptly in sharps containers. These items must not be left in resident care areas, on food trays or placed in trash containers.

It is important that you do not overfill these containers. You will see a "fill line" on sharp containers. This means that you should stop putting sharps in the container once it is filled at the line.

Hepatitis B is a disease that affects your liver. It is caused by the Hepatitis B virus and is spread through blood, semen, and vaginal fluid. Most people who get Hepatitis B can get rid of the virus on their own. But others can develop chronic (or *lifelong*) Hepatitis B.

A vaccine is a shot of inactive virus that stimulates your natural immune system.

There is a vaccine that protects you from getting Hepatitis B. You get it in three different shots. Most people who get these shots develop *antibodies*. Antibodies are proteins that your body makes to fight certain diseases. These antibodies are stored in your body for several years and will fight off the Hepatitis B virus if you are exposed to it.

There are very few side effects, the most common being soreness where you got the shot.

You will NOT get Hepatitis B from the vaccine.

The Hepatitis B vaccine is offered free of charge to all staff potentially exposed to blood. You may decline the Hepatitis B vaccination. If you do decline the vaccination, you must sign a declination form. If you decline the vaccine, you may request the vaccination at a later date.

If you come in contact with blood or other potentially infectious material, or if you are stuck by a needle or sharp, you must tell your supervisor. You will be referred for appropriate medical treatment.

TB is short for tuberculosis, a serious disease that can be spread from person to person. It is caused by a bacterium called *Mycobacterium tuberculosis*. This is a contagious disease and like the common cold, is spread through the air. Only people with active TB can spread TB. When persons with active TB cough, sneeze, talk or spit, TB bacteria are propelled through the air. Other people can get infected if they breathe in the TB bacteria. Some of the general symptoms of tuberculosis are: fatigue, weight loss, fever, night sweats and when it attacks the lungs, a persistent cough that sometime produces blood. There may be dull chest pains.

The largest percent of tuberculosis cases are seen in people over 65 years of age. Many of these people may have a latent form of the disease. As the person ages, the immune function, which fights disease, declines, and places them at increased risk of developing active tuberculosis. It is for this reason that nurses and nursing assistants are at increased risk of occupational exposure to tuberculosis.

The Illinois Department of Public Health (IDPH) requires that the nursing, dietary, laundry and housekeeping staff, as well as the resident, have an annual tuberculin skin test. This test is used to determine if an individual has been exposed to the tuberculosis germ. However, it does not determine if the person has the active disease.

When giving the TB test, a small amount of fluid, called tuberculin is injected under the skin in the lower part of the forearm. Three days later, the site of the injection is checked to see if there has been a reaction. If the test is positive, a chest x-ray will be taken and a sputum sample obtained and tested.

If a physician suspects a resident to have infectious TB, the resident will be masked and isolated until they are transferred out of the facility. (Only facilities with specialized negative-pressure rooms can accommodate residents with TB).

Scabies is an infection of the skin caused by a very small insect-like parasite called a mite. They burrow into the skin, depositing both eggs and feces. A scabies infestation causes intense itching, which leads to scratching and damage to the skin. If left untreated, the infestation can last for years, and has been called the “seven year itch”.

Scabies is usually spread by direct skin-to-skin contact with an infected person. Exchanging clothes and towels or sharing a bed, are less common ways of contracting scabies. Some people are embarrassed to discover they have scabies, even though it can be caught by anyone and does not indicate poor personal hygiene. Scabies can be successfully treated with prescription lotions.

Slips,Trips and Falls

Many injuries in long-term care facilities result from slips, trips and falls. Wet floors, clutter and items across hallways (such as electric cords) are common causes of slips, trips and falls. This can also cause injuries to the residents.

All hallways, storerooms and service rooms must be kept clean, orderly and in a sanitary condition. In addition, every floor must be kept free from protruding nails, splinters, holes or loose tiles and must be kept in good repair.

Always be on the lookout for tripping hazards such as loose or torn carpeting, loose thresholds, broken tiles and electrical cords. Isolate the hazard with a chair temporarily and then a sign. Notify your supervisor. Describe the hazard, the exact location and the immediate action taken. Let your supervisor know if you were able to correct the hazard.

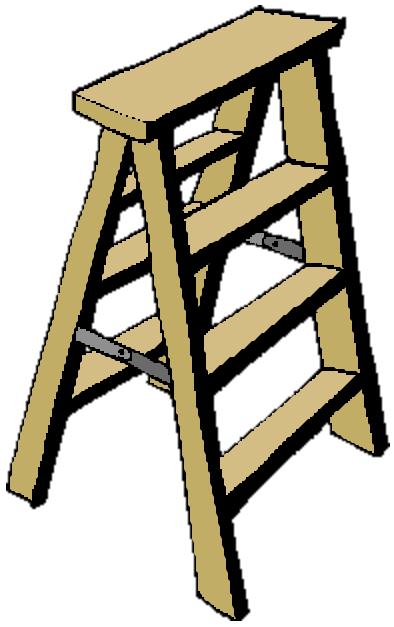
It is everyone's responsibility to clean up spills. When a spill is discovered, regardless of what has been spilled, isolate the spill so employees and residents cannot walk through it. This can be accomplished by placing a chair over the spill or, if available, a "wet floor" sign. Placing paper towels over the spill so it does not spread will help identify that a spill has occurred.

To reduce slipping hazards, housekeeping will mop only one half of the corridor at a time and post "Wet floor" signs. Do not walk on the wet side.

Always wear proper fitting shoes to avoid slips, trips and falls. Open toed shoes and sandals are not permitted.

Parking lots and sidewalks will be kept in good repair. Every attempt will be made to keep walkways free of ice and snow during the winter. However, always use extra caution during bad weather.

Portable Ladders



Each year thousands of workers are seriously injured when they fall from ladders. You don't have to fall far to get hurt. Workers injured in falls from ladders are usually less than 10 feet above the ladder's base of support.

Why do people fall from ladders if they're so easy to use? Most ladder falls involve portable ladders that move, tilt, or shift while a worker is climbing or descending. Unstable or slippery base surfaces are the primary reasons ladders fall over. Other reasons for ladder falls include a misstep or a slip of the foot, loss of balance, or an overreach.

Choose the Right Ladder for the Job

When you select a ladder, make sure it's strong enough and tall enough for the job. Ladders are labeled with duty ratings. Before you use a ladder, check its rating to see if you have the right ladder for the job. These ratings will be located on a sticker pasted on the side of the ladder.

If you work around electrical wire, don't use a metal ladder. A number of accidents occur each year because electrical wires contact metal ladders. Use a dry wooden or nonconductive fiberglass ladder for this kind of work.

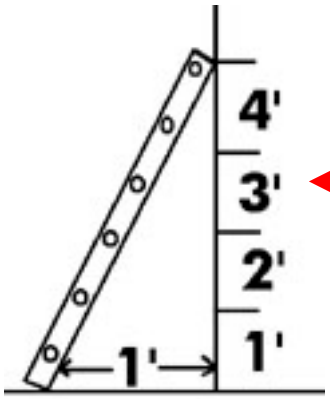
Inspect the Ladder Before You Use It

Before you use any ladder, inspect it. Make certain that the spreaders can be locked in place when open. Be sure straight ladders have safety feet. Metal ladders, either straight or step, should have rubber or plastic feet as well as step coverings.

Check for loose or bent rungs. Look for cracked side rails on wooden ladders and for bent parts on metal ladders.

Set Up Your Ladder Carefully

Place your ladder on a firm, level surface, with its feet parallel to the wall it is resting against. If you have to use the ladder in a busy area, use a barricade to prevent collisions and lock any nearby door that opens toward you.



Use the four-to-one ladder rule: Set the base of your ladder one foot away from the wall for every four feet of ladder height. This ratio is important because if the angle is too steep, you can fall backward. If the angle is too horizontal, the ladder can slip out from under you.

Climb Cautiously

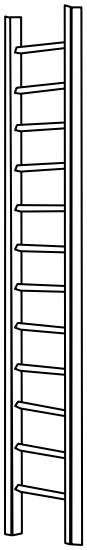
When you climb up or down a ladder, be sure to face it. Hold on to the side rails with both hands. Carry only necessary tools on your belt. Use a rope to raise heavy equipment. If you use power equipment, make sure the ladder is securely tied.

Three-point climbing means you have two hands and one foot or one hand and two feet in contact with the ladder at all times. It is the safest way to climb a ladder.

You can reduce ladder fall risks by doing the following:

- Use the right ladder for the job.
- Frequently inspect and maintain the ladder.
- Set up ladders correctly.
- Climb up and down ladders properly, always keeping 3-points of contact.
- Use ladders when you have to climb more than 19 inches.

Types of Portable Ladders and Safety Rules

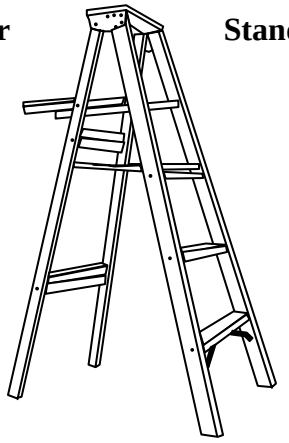


Single Portable or straight ladder

This is the most common type of portable ladder.

When used on slippery surfaces, this ladder must have slip-resistant feet or be secured to prevent it from sliding.

Single portable ladders must not be longer than 30 feet.

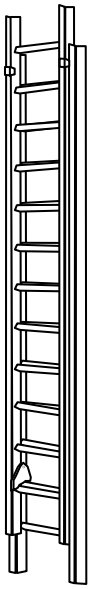


Standard stepladder

These stepladders should be used only on surfaces that offer firm, level footing, such as floors or platforms. They are intended to support only one worker at a time.

Remember not to stand on, or work from, the top step.

The ladder must have a metal spreader or locking arm.



Extension or section ladder

Extension ladders consist of two or more sections that travel in guides or brackets, allowing adjustable length.

The sections must be assembled so that the sliding upper section is on top of the lower section.

Each section must overlap its adjacent section a minimum distance based on the ladder's overall length:

Up to 36 feet, the minimum overlap is 3 feet
Over 36 through 48 feet, the minimum overlap is 4 feet
Over 48 through 60 feet, the minimum overlap is 5 feet

Make sure that extension ladders have non-slip bases.

Electrical Safety

Electricity is dangerous. Whenever you work with electricity there is a risk of shock. As a source of power, electricity is accepted without much thought to the danger. It is because of this familiarity that electricity is not often treated with the respect it deserves. To work with electricity safely, it is necessary to understand how it works, how it can harm you and what safety precautions you must take.

HOW ELECTRICITY WORKS

Electricity travels in closed circuits, normally through wires. But sometimes a person's body (an efficient conductor of electricity) mistakenly becomes part of the electric circuit. This can cause an electrical shock. When a person receives a shock, electricity flows between parts of the body or through the body to a ground or the earth.

THE HARMFUL EFFECTS OF ELECTRICITY

Electricity can cause *shocks, burns, or fires*.

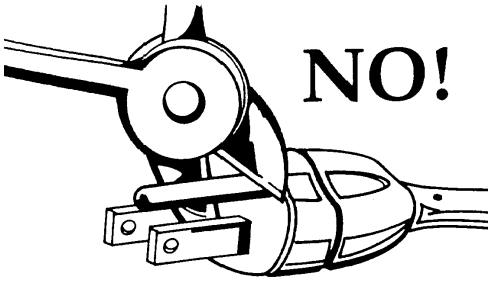
Shock can cause electrocution. A mild shock may cause a tingling sensation. When a person receives an electrical shock, sometimes the electrical stimulation causes the muscles to contract. This "freezing" effect makes the person unable to pull free. Electrical current flowing though your chest, neck, head or major nerves can stop your breathing. Current through the heart can make it beat out of rhythm or stop.

Here is an electrical cord where the insulation has been broken. The electrical wires in the cord are not protected. If you touched these exposed wires, you could receive an electrical shock!

Burns may accompany shock. Your body is not a good conductor, so there is resistance to current flow. That resistance turns into heat. Electricity can "cook" internal organs or cause internal bleeding. Electrical burns are among the most serious burns and require immediate medical attention.

Fires. Electricity is one of the most common causes of fires in homes and workplaces. Bad insulation or loose connections cause electrical fires.

SAFETY PRECAUTIONS YOU CAN TAKE!



Never remove the third-prong! Most electrical cords have a three-prong plug. That third prong must not be removed because it protects you from electric shock.

Adapters are never allowed!

Check your equipment before you use it! You must inspect all electrical equipment and cords before you use them. You need to:

- ❑ Check the insulation for cracks, cuts, or breaks.
- ❑ Check the cord for damage.
- ❑ Check the plug for damage.

Here is an electrical cord that has been "spliced". This means electrical tape has been wrapped around the cord because the insulation was broken. Electrical tape does not provide good protection. This cord is damaged and should not be used.

Handle electrical tools safely!

- ❑ Never store or use electrical tools in damp or wet conditions.
- ❑ Don't kink or twist cords.
- ❑ Don't use tools with frayed, broken or stripped cords.
- ❑ Don't lift a tool by its cord.

Never work wet! Working in wet conditions is hazardous because you may become an easy path for electrical current.

Electrical receptacles in wet areas such as physical therapy, the kitchen, and in resident and staff bathrooms are equipped with **Ground Fault Circuit Interrupters** or GFCIs. The GFCI is a fast acting circuit breaker that shuts off electric power and prevents injury to the worker or the resident when there is a "ground fault".

Don't pull on cords! Always disconnect a cord by the plug. If you don't, the cord will eventually become damaged.

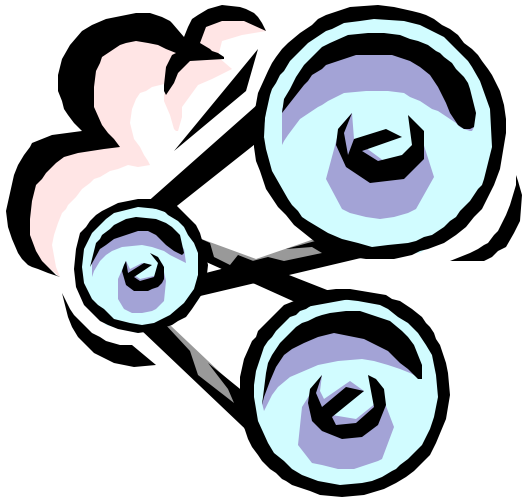
Don't use extension cords. Power strips eliminate the need for multiple extension cords and are allowed.

Report damaged electrical parts and equipment! If you see a problem, get it fixed. Your action can stop a possible electric shock or fire.

Here, an electrical box is missing a cover. The cover protects you from touching live electrical parts in the box. The cover also protects the electrical box from damage that can cause a fire.

DEFECTIVE EQUIPMENT MUST NEVER BE USED. Report damaged equipment to your supervisor immediately.

Machine Guarding



Long-term care workers use a wide variety of machines, such as:

- ✓ buffers
- ✓ dishwashers, mixers and slicers in the kitchen
- ✓ washing machines and dryers
- ✓ lawnmowers and other equipment to help maintain the grounds
- ✓ resident lifting devices

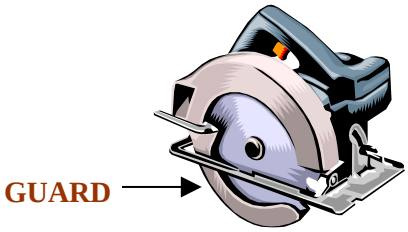
Moving machine parts have the potential for causing severe workplace injuries such as crushed fingers or hands, amputations, burns and blindness. Safeguards are essential for protecting workers from these needless and preventable injuries.

MACHINE HAZARDS YOU NEED TO BE AWARE OF

To prevent injury, you must be able to recognize hazardous conditions on machinery and know how to avoid them. Some of the typical hazardous conditions you may come across include:

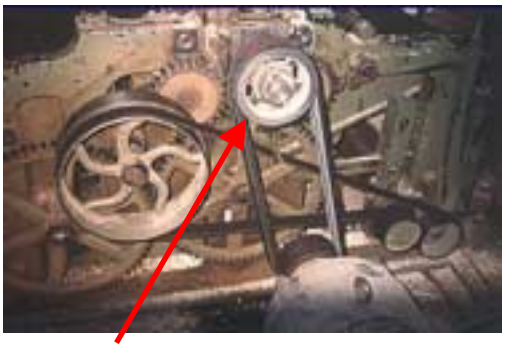
Unguarded points of operation. This is simply the area on the machine where the machine performs work. The action may include cutting or slicing.

This slicer is used in the kitchen to slice meat. A guard must be in place to prevent the kitchen worker from being cut by the blade.



The point of operation on this saw is the blade—which can cut your fingers if the guard is not in place. Maintenance staff use saws when doing repair or remodeling work.

Pinch point hazards caused by belts and pulleys, gears, and other rotating machinery parts.



PINCH POINT

You are probably familiar with belts and pulleys. For example, a belt and pulley helps to power your vacuum cleaner. A pinch point occurs where the belt runs on the pulley. If you were to place your finger in this area, it could get caught.

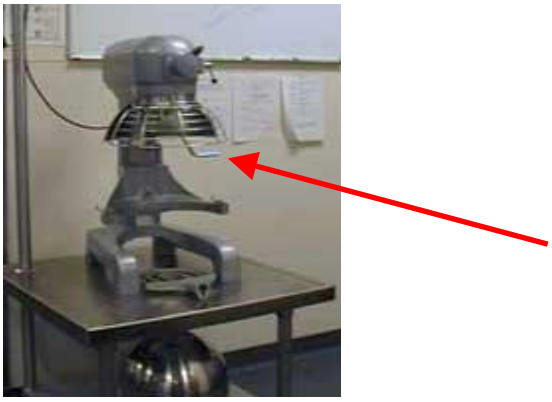
Gears are especially dangerous. As the gears turn toward each other, they produce a pinch point. If a worker were to get their hand or fingers in the pinch point, the metal gears may cut them off.

The inside of washers and dryers rotate while operating. If you were to insert your hand while the machine was operating –it could become caught on the clothes and pull you into the machine! This is why washer and dryers have an "interlock" on the doors. When you open the door—the machine stops because the interlock, or trip, is activated.

SAFEGUARDING MACHINES

There are many ways to safeguard machines. As a general rule, a fixed guard best protects the worker, because the fixed guard encloses the danger area.

Fixed guards are physical barriers that enclose the danger area and prevent worker contact with them. A fixed guard may be made of sheet metal, screen, wire cloth, plastic, or any other material that is substantial enough to withstand whatever impact it may receive and to endure prolonged use.



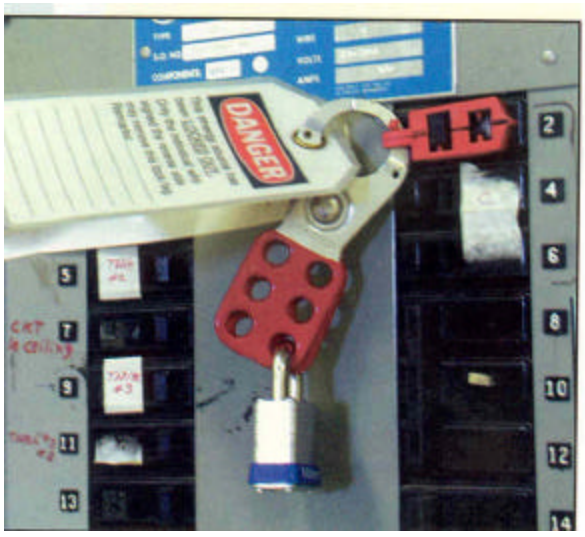
Machine guarding isolates hazards. Here, a barrier guard is installed on a mixer when it is in use to prevent amputations.

Any machine part, function, or process that may cause injury must be safeguarded.

GENERAL REQUIREMENTS FOR SAFEGUARDS

1. Prevent contact. The guard must prevent hands, arms or any part of the worker's body or clothing from making contact with the dangerous parts.
2. Secure. Workers should not be able to easily remove or tamper with the guard.
3. Protect from falling objects. The guard should ensure that objects can't fall into the moving parts.
4. Create no new hazards. The guard should have no sharp edges.
5. Create no interference. The guard should not impede a worker from performing his/her job. Proper safeguard can enhance efficiency by relieving worker apprehension.
6. Allow safe lubrication. The parts should be able to be lubricated without removing the guard.

Lockout



Locking out machinery and equipment before maintenance or repair is an essential element of protecting you and your coworkers from the unexpected start up of the machine or equipment. Failure to lock out machinery before working on it is a major cause of serious injury and death. Workers can be electrocuted, lose fingers, hands, arms, and suffer severe crushing injuries because machinery is accidentally turned on while it is being repaired or maintained.

To protect staff, all nursing facilities are required **by law** to have an accident prevention program called a "Lockout Program". Lockout means that any energy source to the equipment being worked on—whether electrical, mechanical, compressed air, or any other source that might cause unexpected movement—must be disengaged or blocked. Electrical sources must be de-energized and LOCKED in the OFF position. Only then can the equipment be maintained or repaired.

The employer must train workers on the lockout program. The amount of training will depend upon the employee's responsibility for servicing equipment. There are three groups of employees who will need to be trained:

1. The **authorized** employee is the person who locks out the machine in order to perform service or maintenance. In a long-term care facility, this is usually the maintenance worker.
2. The **affected** employee is the person who commonly uses the machine that is being serviced. For example, a laundry worker using a washer.
3. The **other** employee who may be affected or become aware of the lockout. For example, a nursing assistant who becomes aware the dryer in the laundry is being serviced.

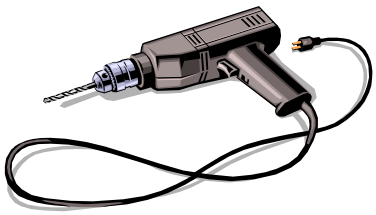
The **authorized** employee will receive detailed training on the energy control program and procedures. Because an **affected** or **other** employee is not performing the servicing or maintenance, that employee's responsibilities under the energy control program are simple: **Whenever there is a lockout device in place, the employee must leave it alone and not attempt to operate the equipment.**

Special locks and devices are used to lockout equipment and can only be applied by the **authorized** employee. A lock is assigned to each **authorized** employee and this employee always carries the key on his/her person when working on the equipment.

No one else should ever attempt to remove the lock!

A tag is used with the lock. The tag is labeled with the date and the name of person doing the service/maintenance. The tag must also warn against hazardous conditions if the machine or device is started. Legends such as DO NOT START-DO NOT OPERATE or other such warnings are acceptable.

Prior to locking out the equipment, all employees in the area affected by the lockout will be informed of the lockout. After the service and/or maintenance, the **authorized** employee will remove all debris and tools from the work site and advise the **affected** employees that the machine is about to be returned to service. Before starting the machine, all guards must be re-installed on the equipment. After making sure the work area is clear, the machine will be restarted.



NOTE: *Lockout procedures do not apply to cord and plug connected equipment. The hazard must be controlled by unplugging the equipment. The plug must be under the exclusive control of the employee performing the service or maintenance.*

Chemicals and Hazard Communication

Long-term care facilities use chemicals. These chemicals include cleaning products such as disinfectants, toilet bowl cleaners and oven cleaners. The maintenance department uses paints and solvents. Fertilizer and pest control products are used on the grass surrounding the building. Snow and ice melting products are used in the winter to maintain the sidewalks and parking lot. The laundry uses detergents and bleach to wash the linen as well as the residents' clothing. It is very important that you know and follow the instructions regarding the safe use of these products.

All Chemicals Must Be Kept Away From The Residents.

HAZARDOUS CHEMICALS

A hazardous chemical is any chemical that can do harm to your body. Most chemicals can harm you at some level. It depends how much gets into your body. Some chemicals are more toxic than others. Just a small amount of some chemicals entering your body can cause harm. Others are much less toxic and it would take great amounts entering your body to do harm.

You are probably familiar with toilet bowl and oven cleaners. These chemicals are considered "corrosive". Corrosives can cause visible skin burns or damage. The extent of skin damage depends on how long the corrosive is on the skin and how concentrated the corrosive is. The longer the corrosive remains on your skin, the greater the injury. The more concentrated the corrosive, the greater the damage. It is important to know how to handle chemicals properly so you can avoid injury.

How Hazardous Chemicals Can Enter YOUR Body

You may come in contact with chemicals by absorption, inhalation or ingestion.

Absorption, or contact with the skin. The skin may react causing local irritation. The chemical may penetrate the skin and enter the bloodstream.

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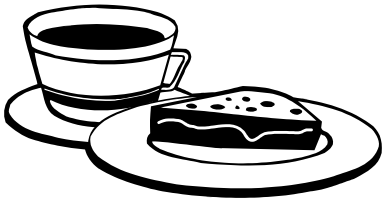
Inhalation – you breathe in the chemical vapors.



Ingestion – your hands come in contact with the chemical. The chemical is ingested when you eat the food you handle. Chemicals can rub off your hands and contaminate food, drinks or tobacco products.

USING CHEMICALS SAFELY

Chemicals can be used safely in the workplace when you use them properly. Nursing facilities must have a "Hazard Communication Program". The Hazard Communication Program is a safety program to inform nursing home workers of hazardous chemicals through:

1. Labeling chemicals

All chemical containers must have labels. Labels provide important information, such as the name of the chemical.

Shown here are chemical products that can be purchased at hardware stores or through suppliers. These products must be labeled with the:

- Name of the product, or chemical
- Hazard warning (physical or health hazard)
- Manufacturer's name and address

Most workplaces use the primary containers they purchase to store and use chemicals. However, they also use their own containers such as coffee cans, drums, plastic jugs, spray bottles, etc. to store and use smaller quantities of chemicals they purchase. These are called secondary containers.

All chemical containers must be labeled!

If you must pour from the original purchased container into another container, the secondary container must also be labeled, with the:

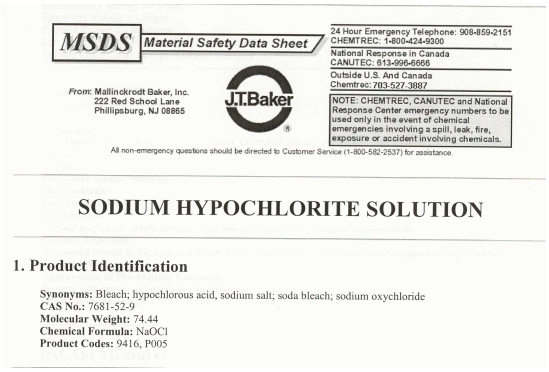
- Name of the product or chemical
- Hazard warning

If you cannot read the labels because you do not read English, you should ask for labels written in a language you can read and understand.

2. Material Safety Data Sheets (MSDS)

A Material Safety Data Sheet (MSDS) is prepared by the manufacturer and provided to the buyer of the chemical product. For example, when the nursing facility buys a cleaning product, it receives a MSDS.

The MSDS provides information on the physical and health hazards of the chemical. This is the information needed to inform and train employees on the safe use of hazardous chemicals. The employer is required to have an MSDS for each hazardous chemical product they use.


MSDS Material Safety Data Sheet

24 Hour Emergency Telephone: 908-859-2151
CHEMTREC: 1-800-424-9300
National Response in Canada
CANUTEC: 613-996-6666
Outside U.S. And Canada
Chemtrec: 703-527-3887

NOTE: CHEMTREC, CANUTEC and National Response Center emergency numbers to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure or accident involving chemicals.

From: Mallinckrodt Baker, Inc.
222 Red School Lane
Phillipsburg, NJ 08865

J.T.Baker

All non-emergency questions should be directed to Customer Service (1-800-582-2537) for assistance.

SODIUM HYPOCHLORITE SOLUTION

1. Product Identification

Synonyms: Bleach; hypochlorous acid, sodium salt; soda bleach; sodium oxychloride
CAS No.: 7681-52-9
Molecular Weight: 74.44
Chemical Formula: NaOCl
Product Codes: 9416, P005

Sometimes MSDS can look intimidating! A lot of technical information is provided. However, your employer will show you the important sections of the MSDS. These include the health effects of the chemical, how to handle the chemical safely and what to do if the chemical spills.

An MSDS will be divided into several sections which provide information on the name of the chemical, its physical properties, health effects, fire hazards, etc. The following table lists the "Health Hazards Acute and Chronic" section of a MSDS for bleach. If you read the area under "Skin Contact", you will know that skin contact with the chemical can cause irritation of the skin. If you were to get the chemical in your eyes, you would need to flush your eyes with water (as listed under first aid). MSDS are easier to read, when you learn how!

HEALTH HAZARDS ACUTE AND CHRONIC

INHALATION: Fumes from spills very irritating to mucous membranes. Very little hazard from properly stored solution.

INGESTION: Causes irritation of membranes of mouth, throat, stomach pain and possible ulceration.

SKIN CONTACT: Irritation, reddening of skin, skin damage.

EYE CONTACT: Severe irritation**.**

FIRST AID

- Eye: Wash with water for 15 minutes. Consult eye specialist immediately.
- Skin: Flood with water for 15 minutes.
- Inhalation: Remove to fresh air. Administer oxygen if breathing is difficult.
- Ingestion: If accidentally ingested drink water or milk. Obtain medial attention. Do not use baking soda or acidic antidotes.

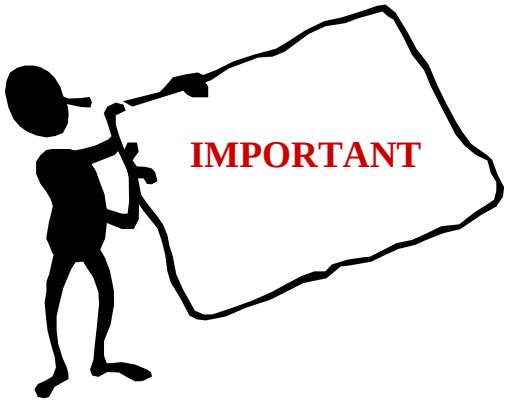
Here is an example of a MSDS for bleach. This section talks about health hazards. To find out how bleach can affect your skin, you would read the "SKIN CONTACT" section.

3. Information and Training

Your nursing facility will provide information and training on how to use hazardous chemicals safely. Some of this training will include:

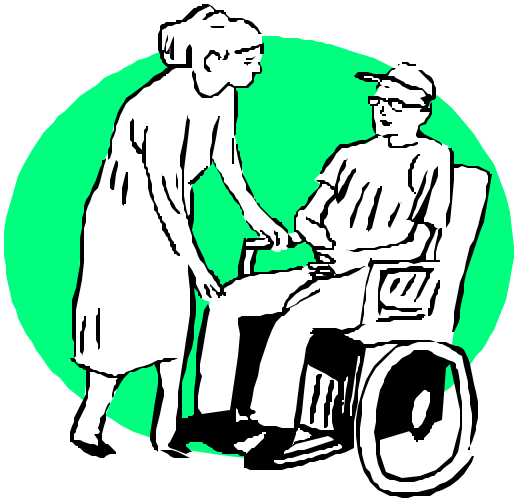
- Chemicals that are used at your facility.
- How to read labels and MSDSs.
- Emergency procedures to follow if you are exposed to any chemicals.
- What types of personal protective equipment, like gloves, you may need to use when handling chemicals.

NO TRAINING IS EFFECTIVE IF YOU DON'T FOLLOW THE INSTRUCTIONS!



General Rules of Chemical Safety
Never mix chemicals together unless the manufacturer indicates that it is safe to do so.
Follow the directions on the label when using the product.
Use the personal protective equipment described on the product label or on the Material Safety Data Sheet.
Know the location of, and how to use, the emergency eye wash station.
Know the location of the Material Safety Data Sheets.
Whenever a product is removed from its original container and placed in another container, label the second container.
If you don’t know how to use a chemical safely, **ASK!**

Workplace Violence



It is important to remember that even the most respectful environment can experience incidents of workplace violence. The environment may not always be the stressor that leads to the incident. A resident may be experiencing psychological problems. He or she may be feeling abandoned or may be confused or disorientated.

Health care and social service sectors experience the highest number of non-fatal assaults. Non-fatal assaults are caused primarily by residents on nursing staff. Most violent acts include biting, kicking and hitting.

It is important that you are aware of the risk factors for violence and the strategies for reducing exposure to these factors.

Workplace Violence is a violent act, including physical assaults and threats of assaults, directed toward persons at work or on duty. Workplace violence ranges from offensive or threatening language to homicide.

Who is at Risk? Although anyone working in a nursing facility may become a victim of violence, nurses and nursing assistants who have the most direct contact with residents are at higher risk.

The Effects of Violence can range in intensity and include physical injuries and psychological trauma.

Violence may also have negative organizational outcomes such as low worker morale, increased job stress, increased worker turnover, reduced trust of management and coworkers, and a hostile working environment.

The Risk Factors for Violence vary from nursing facility to nursing facility depending on location, size, and type of care. Common risk factors for violence include the following:

- Working when understaffed, especially during meal times and visiting hours
- Transporting residents
- Lack of staff training and policies for preventing and managing crises with potentially volatile residents

Reducing the Risk of Violence. Although risk factors for violence are specific for each nursing facility and its work scenarios, all staff involved with people with dementia need good quality dementia training. This is to ensure they have the appropriate skills and understanding to meet the needs of people in their care.

Providing training shows employees that management takes this seriously and encourages employees to report incidents.

Training could include:

- ❑ Encouragement and support to report incidents
- ❑ Common behaviors of people with dementia
- ❑ How to respond to residents with dementia

If you can't defuse the situation quickly, leave and get help. Immediately report any violent incidents to your supervisor.

Questions

ERGONOMICS

1. Ergonomics is the science of fitting the job to a group of workers.
    a. True
    b. False

2. Mechanical assistive devices (lifts) help reduce injury by avoiding unnecessary _____ _____.

3. Frequent reaching above the shoulder can cause strains:
    a. True
    b. False

4. _____ carts are sometimes used in the laundry to help reduce bending over.

5. When cleaning you want to use _____ for overhead jobs.

BIOLOGICAL AND INFECTIOUS AGENTS

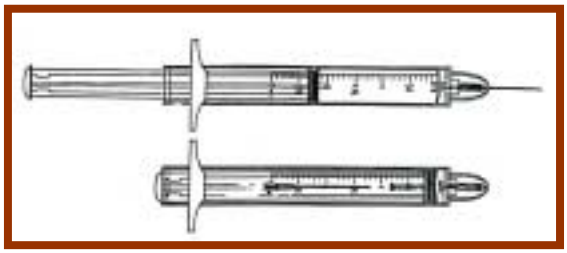
1. If you are exposed to potentially infectious materials on the job, you will be offered a vaccine for which bloodborne disease?
    a. HIV
    b. Hepatitis C
    c. Hepatitis B

2. If you wear gloves when cleaning up a spill, it is not necessary to wash your hands afterwards.
    a. True
    b. False

3. You should always treat all body fluids as if they are infectious and avoid direct skin contact with them.
    a. True
    b. False

4. Bloodborne pathogens may enter your system through:
    a. Open cuts
    b. Skin abrasions
    c. Mucous membranes
    d. All of the above

5. This photo shows:



_____

that are required to be used and placed in:

_____

once used.

SLIPS, TRIPS, AND FALLS

1. Which of the following would be an unsafe act?
    a. Using a steady chair to stand on if the task will take less than one minute.
    b. Posting “Wet Floor” signs
    c. Reporting broken tile

2. Open-toed shoes are permitted in the office areas only:
    a. True
    b. False

PORTABLE LADDERS

1. You have to fall more than 15 feet from a ladder before you get hurt.
    a. True
    b. False

2. Three-point climbing means:
    a. The ladder contacts the wall, floor, and person
    b. You have two hands and one foot or one hand and two feet in contact with the ladder at all times
    c. You are allowed to carry three items only with you when you climb the ladder

ELECTRICAL SAFETY

1. Electricity can cause:
    a. Shock
    b. Burns
    c. Fire
    d. All of the above
    e. None of the above

2. What is an unsafe act?
    a. Changing a 3-prong plug to fit a 2-prong outlet
    b. Using a GFCI
    c. Using a powerstrip

3. You should inspect electrical equipment you are going to use:
    a. Before each day's use
    b. Following any incident causing damage
    c. Monthly and following any incident causing damage
    d. Before each day's use and following any incident causing damage.

4. The picture on the right is an unsafe condition because the electrical box is missing a

    _____.

MACHINE GUARDING

1. Mixers used in the kitchen must be equipped with a barrier guard.
    a. True
    b. False

2. Guards should be easy to remove in case you need to clean the machine.
    a. True
    b. False

3. The danger area for a belt and pulley is called the:
    a. Point of operation
    b. Pinch point
    c. Gear

4. The machine guard must prevent hands, arms, or any part of the worker's body from making _____ with the dangerous parts.

5. This condition is found in the laundry. The belt and pulleys are missing a _____.

If you found this condition you would:

_____.

LOCKOUT

1. The employee who can lockout equipment and machines is called:
    a. Authorized
    b. Affected
    c. Other

2. Anyone can remove a lock from a machine if you really need to use it:
    a. True
    b. False

3. Failure to lockout machinery before you work on it has caused _____ _____.

CHEMICALS AND HAZARD COMMUNICATION

1. The three ways a chemical can enter the body are ingestion, skin absorption and inhalation:
    a. True
    b. False

2. Any container containing a chemical must be labeled:
    a. True
    b. False

3. If you have a question about a chemical or product, you can check with:
    a. The MSDS
    b. Your supervisor
    c. Both a and b
    d. None of the above

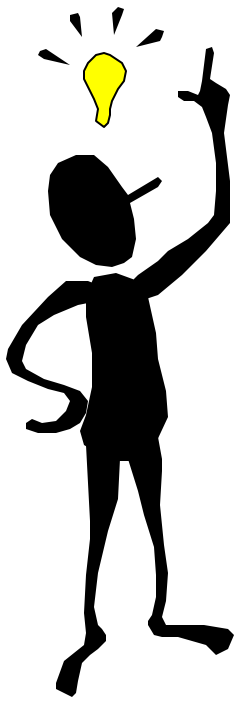
4. Which of the following is not required for hazard communication training?
    a. What chemicals are used
    b. How to purchase the chemical
    c. How to read labels and MSDS
    d. What types of PPE you need to use

WORKPLACE VIOLENCE

1. At a minimum, all employees should be trained in how to:
    a. Manage anger
    b. Managing stress and use of relaxation techniques
    c. Report incidents of violence

2. The type of training that is beneficial to all employees working in long-term facilities is that which focuses on _____.

Answers



ERGONOMICS

1. True

2. Manual transfers

3. True

4. Spring-loaded

5. Use extension handles, step stools or ladders for overhead jobs. When dusting overhead, use an extender.

BIOLOGICAL AND INFECTIOUS AGENTS

1. Hepatitis B

2. False

3. True

4. All of the Above

5. Safer medical device (for needles) that are required to be placed in a Sharps Container

SLIPS, TRIPS, AND FALLS

1. Using a steady chair to stand on if the task will take less than one minute.

2. False

PORTABLE LADDERS

1. False

2. You have two hands and one foot or one hand and two feet in contact with the ladder at all times

ELECTRICAL SAFETY

1. All of the above

2. Changing a 3-prong plug to fit a 2-prong outlet

3. Before each day's use and following any incident causing damage.

4. Cover

MACHINE GUARDING

1. True

2. False

3. Pinch point

4. Contact

5. Guard. If you found this condition you should temporarily block the area with a chair, etc. and report it immediately to your supervisor so a permanent guard can be installed.

LOCKOUT

1. Authorized.

2. False. Only the person who put the lock on can remove the lock.

3. Serious injury and death. Workers have been electrocuted, lost fingers and arms and suffered crushing injuries.

CHEMICALS AND HAZARD COMMUNICATION

1. True
2. True
3. Both a and b (the MSDS and your supervisor).
4. How to purchase the chemical.

WORKPLACE VIOLENCE

1. Report incidents of violence.
2. Dementia training